

IN THE CLAIMS

Pursuant to 37 CFR §1.121(c), the claim listing, including the text of the claims, will serve to replace all prior versions of the claims, in the application.

Claims 1-56, 64-84, 90-100, 105-116 and 119-127 are pending, of which claims 43-45, 73 and 94 are withdrawn from further consideration.

Claims 57-63, 85-89, 101-104, 117 and 118 were previously canceled.

1 1. (previously presented) A plug, comprising:

2 a first base bearing a keyway providing a first electrical conductor and an
3 orifice spaced-apart from and separated by a mass of said plug from said keyway;

4 a second base separated by an axial length of said plug from said first
5 base, said second base disposed to support a cam, said mass being perforated by a
6 plurality of radially oriented apertures forming an array;

7 an exterior surface extending between and engaging said first base and
8 said second base;

9 a sidebar positioned between said first base and said second base to
10 reciprocate between a first location with said sidebar simultaneously engaging said plug
11 and a cylinder surrounding said plug, and a second location releasing said plug for
12 relative movement between the cylinder and said plug;

13 a locking mechanism disposed within said apertures to move relative to
14 said plug in response to a key inserted into said keyway to accommodate reciprocation
15 of said sidebar relative to said plug and rotation of said plug relative to the cylinder
16 when the key while inserted into said keyway engages in a selected relation with said
17 locking mechanism, and obstructing said reciprocation absent said selected relation;

18 a second electrical conductor terminating with an electrical contact
19 exposed to an exterior of said first base through said orifice;

20 an electronic logic circuit borne by said plug while coupled to receive
21 electrical data signals via said first and second electrical conductors, and generating
22 control signals in dependence upon said electrical power and data signals; and

23 an electrical operator disposed within one of said apertures, said operator

24 having a distal member travelling in dependence upon said control signals between a
25 first position relative to said exterior surface obstructing said relative movement by
26 engaging a detent protruding from the cylinder, and a second and different position
27 relative to said exterior surface accommodating said relative movement.

1 2. (previously presented) The plug of claim 1, comprising said locking
2 mechanism, logic circuit and electrical operator simultaneously experiencing said
3 rotation relative to the cylinder whenever said plug rotates relative to the cylinder.

1 3. (previously presented) The plug of claim 1, comprising said locking
2 mechanism, logic circuit and electrical operator being wholly within the cylinder and
3 travelling with said plug whenever said plug moves relative to the cylinder.

1 4. (previously presented) The plug of claim 1, with said electrical operator
2 maintaining said distal member within said plug with said distal member extended not
3 beyond said exterior surface while said distal member is in said first position, and
4 maintaining said distal member in concurrent engagement with said plug and with the
5 detent while said distal member is in said first position.

1 5. (previously presented) The plug of claim 1, with said electrical operator
2 maintaining said distal member within said plug with said distal member extending not
3 beyond said exterior surface while said distal member is in said first position, and
4 moving said distal member radially between relative to said exterior surface in
5 dependence upon said control signals.

1 6. (previously presented) A lock, comprising:

2 a cylinder containing a hollow recess defining a longitudinal axis and a
3 stationary detent extending from said cylinder;

4 a plug bearing a plurality of open radially oriented apertures forming an
5 array, said plug being rotatable around said longitudinal axis while resident within said
6 hollow recess, said plug comprising:

7 a first base bearing a keyway providing a first electrical conductor
8 and an orifice spaced-apart from and separated by a mass of said plug from said
9 keyway;

10 a second base separated by an axial length of said plug from said
11 first base, said second base disposed to support a cam;

12 an exterior surface extending between and engaging said first base
13 and said second base;

14 a sidebar positioned between said first base and said second base to create
15 an obstruction to relative movement between said cylinder and said plug;

16 a locking device disposed within said apertures to release an obstruction
17 when the key while inserted into said keyway engages in a selected relation with said
18 locking means, and to maintain said obstruction absent said selected relation;

19 a second electrical conductor terminating with an electrical contact
20 exposed to an exterior of said first base through said orifice;

21 an electronic logic circuit borne by said plug, coupled to receive electrical
22 data signals via said first and second electrical conductors, and generating control
23 signals in dependence upon said electrical power and data signals; and

24 an electrical operator borne by said plug, disposed within one of said
25 apertures, said operator having a distal member radially traveling along an axis
26 transverse to said longitudinal axis, in dependence upon said control signals between a
27 first position relative to said exterior surface to obstruct said movement in concert with
28 said locking device and a second and different position relative to said exterior surface
29 accommodating said movement.

1 7. (previously presented) The plug of claim 6, comprising said locking device,
2 logic circuit and electrical operator simultaneously experiencing said rotation relative
3 to the cylinder whenever said plug rotates relative to the cylinder.

1 8. (previously presented) The plug of claim 6, comprising said locking device,
2 logic circuit and electrical operator being wholly within the cylinder and travelling with
3 said plug whenever said plug moves relative to the cylinder.

1 9. (previously presented) The plug of claim 6, with said electrical operator
2 maintaining said distal member within said plug with said distal member extended not
3 beyond said exterior surface while said distal member is in said second position, and
4 maintaining said distal member in engagement with said detent while said distal
5 member is in said first position.

1 10. (previously presented) The plug of claim 6, with said electrical operator
2 maintaining said distal member within said plug with said distal member extending not
3 beyond said exterior surface while said distal member is in said first position.

1 11. (previously presented) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an
3 interior cylindrical surface, said shell bearing a detent extending into said shell;

4 a plug rotatable around said longitudinal axis while resident within said
5 hollow recess, and a bar interposed between said shell and said plug generally along a
6 radial plane engaging both said shell and said plug while obstructing rotation of said
7 plug within said recess, said plug comprising:

8 a first base providing a first electrical conductor;

9 a second base separated by an axial length of said plug from said
10 first base;

11 an exterior surface extending between and engaging said first base
12 and said second base;

13 a locking device responsive to a key inserted into said keyway
14 accommodating relative movement between said shell and said plug when the
15 key while inserted into said keyway engages in a selected relation with said
16 locking device and obstructing said relative movement absent said selected
17 relation;

18 a second electrical conductor terminating with an electrical contact
19 exposed to an exterior of said first base through said orifice;

20 an electronic logic circuit coupled to receive electrical data signals

21 via said first and second electrical conductors, and generating control signals in
22 dependence upon said data signals; and

23 an electrical operator having a distal member moving relative to
24 said detent, in dependence upon said control signals between a first orientation
25 relative to said exterior surface enabling said relative movement and a second
26 and different orientation relative to said exterior surface obstructing said relative
27 movement when said distal member at least partially surrounds said detent.

1 12. (previously presented) The plug of claim 1, further comprised of said:

2 electrical operator comprising an electrical coil coaxially aligned with
3 said distal member, to move said distal member between said second position and said
4 first position in response to said control signals; and

5 said distal member bearing a circumferential surface blocking said relative
6 movement while said distal member is in said second position, and a variation in said
7 circumferential surface accommodating said relative movement while said distal
8 member is in said first position.

1 13. (previously presented) The plug of claim 6, further comprised of said:

2 electrical operator comprising an electrical coil coaxially aligned with
3 said distal member, to move said distal member between said second position and said
4 first position in response to said control signals; and

5 distal member bearing a circumferential surface obstructing said relative
6 movement while said distal member is in said second position, and a variation in said
7 circumferential surface accommodating said relative movement while said distal
8 member is in said first position.

1 14. (previously presented) A lock, comprising:

2 a cylinder containing a hollow interior recess defining a longitudinal axis,
3 and bearing a slot within said recess; and

4 a plug rotatable from a rest orientation around said longitudinal axis while
5 resident within said hollow recess relative to said cylinder; and

6 a stationary detent positioned between said first end and second end while
7 extending into said slot, and providing simultaneous engagement of said cylinder and
8 said plug while said cylinder remains in said rest orientation;

9 said plug comprising:

10 a first base bearing an opening accommodating insertion of a key
11 and providing a first electrical conductor;

12 a second base separated by an axial length of said plug from said
13 first base, said second base disposed to support a cam, said mass being
14 perforated by an aperture;

15 an exterior surface extending between said first base and said
16 second base;

17 a retainer oriented to retain a shank of a key inserted into said
18 opening while said plug remains in an orientation other than said rest orientation
19 relative to said cylinder, and to accommodate removal of the key from said
20 opening while said plug is in said rest orientation;

21 a second electrical conductor terminating with an electrical contact
22 exposed to an exterior of said first base through said orifice;

23 an electronic logic circuit comprising a memory storing a code,
24 said circuit being borne by said plug and coupled to receive electrical data
25 signals via said first and second electrical conductors, said circuit generating
26 control signals in dependence upon correspondence between said code and
27 information borne by said data signals; and

28 an electrical operator borne by said plug, said operator having a
29 distal member travelling in dependence upon said control signals between a first
30 position relative to said exterior surface maintaining engagement of said detent
31 and a second and different position relative to said exterior surface
32 accommodating movement between said plug and said cylinder.

1 15. (previously presented) The lock of claim 14, further comprising:

2 said detent being borne by said cylinder; and

3 said distal member being oriented within said plug to move relative to

4 said plug to accommodate rotation of said plug from said rest orientation relative to the
5 cylinder when a key while inserted into said opening generates said data signals
6 representing information having a selected said correspondence with said code, and
7 obstructing said rotation absent said selected correspondence.

1 16. (previously presented) The lock of claim 14, further comprising:

2 said detent comprising an arm arcuately engaging said cylinder and a
3 tooth extending from said arm and through said slot; and

4 said distal member being oriented within said plug to move relative to
5 said plug to accommodate passage of said tooth relative to said distal member during
6 rotation of said plug from said rest orientation relative to the cylinder when a key while
7 inserted into said opening generates said data signals representing information having a
8 selected said correspondence with said code, and obstructing said rotation of said plug
9 from said rest orientation by engaging said tooth absent said selected correspondence.

1 17. (previously presented) The lock of claim 14, further comprising:

2 said detent comprising an arm arcuately engaging said cylinder and a
3 tooth extending from said arm and through said slot; and

4 said distal member being oriented within said plug to move relative to
5 said plug to accommodate passage of said tooth relative to said distal member during
6 rotation of said plug from said rest orientation relative to the cylinder when a key while
7 inserted into said opening generates said data signals representing information having a
8 selected said correspondence with said code, obstructing said rotation of said plug from
9 said rest orientation by engaging said tooth absent said selected correspondence, and
10 accommodating passage of said tooth relative to said distal member during rotation of
11 said plug from an orientation other than said rest orientation to said rest orientation.

1 18. (previously presented) The lock of claim 14, further comprising:

2 said detent comprising an arm arcuately engaging said cylinder and a
3 tooth extending from said arm and through said slot; and

4 said distal member being oriented within said plug to move relative to

5 said plug to accommodate passage of said tooth relative to said distal member during
6 rotation of said plug from said rest orientation relative to the cylinder when a key while
7 inserted into said opening generates said data signals representing information having a
8 selected said correspondence with said code, and obstructing said rotation of said plug
9 from said rest orientation by engaging said tooth absent said selected correspondence
10 when said rotation is in a first direction, and accommodating said rotation of said plug
11 from said rest orientation despite an absence of said selected correspondence when said
12 rotation is in a second and opposite direction.

1 19. (previously presented) The lock of claim 14, further comprising:

2 said detent comprising an arm arcuately engaging said cylinder and a
3 tooth extending from said arm and through said slot; and

4 said distal member being oriented within said plug in an engagement of
5 said tooth to obstruct said rotation of said plug from said rest orientation, and to move
6 relative to said plug from said engagement of said tooth obstructing said rotation of said
7 plug from said rest orientation to an accommodation of passage of said tooth relative to
8 said distal member during rotation of said plug from said rest orientation relative to the
9 cylinder when a key while inserted into said opening generates said data signals
10 representing information having a selected said correspondence with said code, and
11 continuing said accommodation despite intermittent removal of the key from said
12 opening.

1 20. (previously presented) The lock of claim 14, further comprising:

2 said detent comprising an arm arcuately engaging said cylinder and a
3 tooth extending from said arm and through said slot; and

4 said distal member being oriented within said plug in an engagement of
5 said tooth to obstruct said rotation of said plug from said rest orientation, and to move
6 relative to said plug from said engagement of said tooth obstructing said rotation of said
7 plug from said rest orientation to an accommodation of passage of said tooth relative to
8 said distal member during rotation of said plug from said rest orientation relative to the
9 cylinder when a key while inserted into said keyway generates said data signals

10 representing information having a selected said correspondence with said code, and
11 continuing said accommodation despite intermittent removal of the key from said
12 opening absent subsequent said generation of data signals representing information
13 having said selected correspondence with said code.

1 21. (previously presented) The lock of claim 16, further comprising:

2 a sidebar positioned between said first base and said second base to
3 provide reciprocation between a first location with said sidebar providing simultaneous
4 engagement with said plug and said cylinder, and a second location releasing said plug
5 for rotation relative to the cylinder; and

6 said electrical operator comprising an electrical solenoid borne by said
7 plug, said distal member comprising an armature travelling in dependence upon said
8 control signals between a third position relative to said exterior surface maintaining
9 said simultaneous engagement and a fourth and different position relative to said
10 exterior surface accommodating said reciprocation.

1 22. (previously presented) The lock of claim 17, further comprising:

2 a sidebar positioned between said first base and said second base to
3 provide reciprocation between a first location with said sidebar providing simultaneous
4 engagement with said plug and said cylinder, and a second location releasing said plug
5 for rotation relative to the cylinder; and

6 said electrical operator comprising an electrical solenoid borne by said
7 plug, said distal member comprising an armature travelling in dependence upon said
8 control signals between a third position relative to said exterior surface maintaining
9 said simultaneous engagement and a fourth and different position relative to said
10 exterior surface accommodating said reciprocation.

1 23. (previously presented) The lock of claim 18, further comprising:

2 a sidebar positioned between said first base and said second base to
3 provide reciprocation between a first location with said sidebar providing simultaneous
4 engagement with said plug and said cylinder, and a second location releasing said plug

5 for rotation relative to the cylinder; and

6 said electrical operator comprising an electrical solenoid borne by said
7 plug, said distal member comprising an armature travelling in dependence upon said
8 control signals between a third position relative to said exterior surface maintaining
9 said simultaneous engagement and a fourth and different position relative to said
10 exterior surface accommodating said reciprocation.

1 24. (previously presented) The lock of claim 19, further comprising:

2 a sidebar positioned between said first base and said second base to
3 provide reciprocation between a first location with said sidebar providing simultaneous
4 engagement with said plug and said cylinder, and a second location releasing said plug
5 for rotation relative to the cylinder; and

6 said electrical operator comprising an electrical solenoid borne by said
7 plug, said member comprising an distal armature travelling in dependence upon said
8 control signals between a third position relative to said exterior surface maintaining
9 said simultaneous engagement and a fourth and different position relative to said
10 exterior surface accommodating said reciprocation.

1 25. (previously presented) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident
5 within said hollow recess;

6 a stationary bar borne by said shell and interposed between said shell and
7 said cylinder plug to create an obstruction to rotation of said cylinder plug within said
8 recess;

9 said cylinder plug comprising:

10 a first base and a second base separated by an axial length of said cylinder
11 plug from said first base, said second base configured to support a cam; and

12 an electrical operator borne by said cylinder plug and rotatable with said
13 cylinder plug, said electrical operator being electrically operable to respond to a

14 control signal by moving independently of said bar between one of a first
15 orientation accommodating relative movement between said shell and said
16 cylinder plug and a second and different orientation maintaining obstruction of
17 said relative movement.

1 26. (previously presented) The lock of claim 25, further comprised of:

2 a logic circuit generating said control signal in response to a comparison
3 between a code set within said logic circuit and a data signal applied to said logic
4 circuit; and

5 said electrical operator moving between said second orientation and said
6 first orientation in response to said control signal.

1 27. (previously presented) The lock of claim 25, further comprised of a key
2 retainer maintaining a shank of a key within said cylinder plug during rotation of said
3 cylinder plug relative to said shell.

1 28. (previously presented) The lock of claim 27, further comprised of a locking
2 mechanism borne by said cylinder plug, said cylinder plug being perforated by an
3 aperture admitting reciprocal travel of a key relative to said locking mechanism, and
4 said locking mechanism obstructing movement of said cylinder plug relative to said
5 shell absent the key exhibiting a selected relation with said locking mechanism.

1 29. (previously presented) The lock of claim 25, further comprised of a plurality
2 of electrical conductors borne by said lock to engage a circuit in a key inserted into said
3 cylinder plug.

1 30. (previously presented) The lock of claim 25, further comprised of a power
2 source to energize said electric operator, positioned to rotate with said cylinder plug
3 relative to said shell.

1 31. (previously presented) The lock of claim 30, further comprised of said

2 power source being mounted on a key.

1 32. (previously presented) The lock of claim 25, further comprised of a network
2 of a plurality of cylinder plugs including said cylinder plug, and a switching device
3 controlling operation of said network.

1 33. (previously presented) The lock of claim 32, with said switching device
2 comprising a logic circuit.

1 34. (previously presented)

1 The lock of claim 1, further comprised of said:

2 electrical operator comprising an electrical coil moving said distal
3 member, to reciprocate said distal member between said first position and said second
4 position in response to said control signals; and

5 said distal member bearing a circumferential surface blocking said radial
6 movement of said sidebar while said distal member is in said second position, and
7 accommodating said radial movement while said distal member is in said first position.

1 35. (previously presented) The lock of claim 6, further comprised of said:

2 electrical operator comprising an electrical coil moving said distal
3 member, to reciprocate said distal member between said first position and said second
4 position in response to said control signals; and

5 said distal member bearing a circumferential surface blocking said radial
6 movement of said sidebar while said distal member is in said second position, and
7 accommodating said radial movement while said distal member is in said first position.

1 36. (previously presented) The lock of claim 16, further comprising said distal
2 member bearing a mass engaging said detent and blocking said rotation while said distal
3 member is in said first position, and a groove through said mass accommodating
4 relative passage between said distal member relative to said detent while said distal
5 member is in said second position.

1 37. (previously presented) The lock of claim 16, further comprising said distal
2 member bearing a mass exhibiting a first height accommodating relative passage
3 between said distal member relative to said detent while said distal member is in said
4 second position, and a second and greater height engaging and blocking said rotation
5 while said distal member is in said first position.

1 38. (previously presented) The lock of claim 16, further comprising said distal
2 member bearing a mass having a periphery engaging said detent and blocking said
3 rotation while said distal member is in said first position, and a central variation in said
4 mass relative to said periphery accommodating relative passage between said distal
5 member and said detent while said distal member is in said second position.

1 39. (previously presented) The lock of claim 25, further comprising:

2 a logic circuit generating said control signal in response to a comparison
3 between a code set within said logic circuit and a data signal applied to said logic
4 circuit;

5 a conductor provided by said cylinder plug, conveying said data signal to
6 said logic circuit; and

7 said electrical operator moving from said second orientation to said first
8 orientation in response to said control signal.

1 40. (previously presented) The lock of claim 39, with said conductor comprising
2 an electrical conductor.

1 41. (previously presented) The lock of claim 25, further comprising:

2 a logic circuit borne by said cylinder plug, generating said control signal
3 in response to a comparison between a code set within said logic circuit and a data
4 signal applied to said logic circuit;

5 a conductor borne by said cylinder plug, conveying said data signal to said

6 logic circuit; and

7 said electrical operator moving between said second orientation and said
8 first orientation in response to said control signal.

1 42. (previously presented) The lock of claim 41, with said conductor comprising
2 an electrical conductor.

1 43. (withdrawn) A lock, comprising:

2 a cylinder containing a hollow interior recess defining a longitudinal axis,
3 and bearing a slot within said recess; and

4 a cylinder plug rotatable from a rest orientation around said longitudinal
5 axis while resident within said hollow recess relative to said cylinder; and

6 an elongate member positioned between said cylinder and said cylinder
7 plug, and while extending into said slot, preventing rotation between said cylinder and
8 said cylinder plug by making a direct simultaneous engagement of said cylinder and
9 said cylinder plug while said plug remains in said rest orientation and, in response to a
10 torque that is externally applied to said cylinder plug and that causes said rotation of
11 said cylinder plug within said shell, exiting said slot while maintaining a second
12 simultaneous engagement of said cylinder and said cylinder plug that accommodates
13 said rotation;

14 said cylinder plug comprising:

15 a first base bearing an orifice spaced-apart from and separated by a
16 mass of said cylinder plug;

17 a second base separated by an axial length of said cylinder plug
18 from said first base, said mass being penetrated by a radially oriented aperture;

19 an exterior surface extending between said first base and said
20 second base;

21 a conductor having a terminal exposed to an exterior of said first
22 base through said orifice;

23 an electronic logic circuit comprising a memory storing a code,
24 said circuit being borne by said cylinder plug and coupled to receive data signals

25 via said conductor, said circuit generating control signals in dependence upon a
26 comparison between said code and information borne by said data signal;

27 an electrical operator mounted within said aperture, said operator
28 having a movable member traveling in dependence upon said control signals
29 between a first position relative to said exterior surface maintaining said
30 simultaneous engagement by blocking movement of said elongated member from
31 said direct simultaneous engagement and a second and different position relative
32 to said exterior surface accommodating movement between said plug and said
33 cylinder; and

34 a component biasing said movable member to maintain said
35 simultaneous engagement.

1 44. (withdrawn) The lock of claim 43, further comprising:

2 said elongate member comprising a sidebar positioned between said first
3 base and said second base to reciprocate between a first location while providing said
4 simultaneous engagement, and a second location releasing said plug for rotation relative
5 to said cylinder; and

6 said movable member being oriented within said plug to move relative to
7 said plug to accommodate reciprocation of said sidebar relative to said plug and
8 rotation of said plug from said rest orientation relative to the cylinder when a key while
9 inserted into said plug generates said data signals representing information having a
10 selected said comparison with said code, and obstructing said reciprocation absent said
11 selected comparison.

1 45. (withdrawn) The lock of claim 43, further comprising:

2 said elongate member comprising an arm arcuately engaging said cylinder
3 and a detent extending from said arm and through said slot; and

4 said movable member being oriented within said plug to move relative to
5 said plug to accommodate passage of said detent relative to said movable member
6 during rotation of said plug from said rest orientation relative to the cylinder when a
7 key while inserted into said plug generates said data signals representing information

8 having a selected said correspondence with said code, and obstructing said rotation of
9 said plug from said rest orientation by engaging said detent absent said selected
10 correspondence.

1 46. (previously presented) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident
5 within said hollow recess;

6 a bar borne by said plug and rotatable with said plug relative to said shell,
7 said bar being interposed between said shell and said cylinder plug to reciprocate
8 between a first position engaging both said shell and said cylinder plug while
9 obstructing rotation of said cylinder plug within said recess, and a second position
10 accommodating said rotation, said cylinder plug comprising:

11 a first base and a second base separated by an axial length of said
12 plug from said first base, said second base bearing means for supporting a cam;
13 and

14 an electrical operator being electrically operable to respond to an
15 electrical control signal by obstructing movement of said bar between said first position
16 and said second position in response to a first state of said control signal and by moving
17 within a second and different plane not coextensive with said radial plane in response to
18 application of said control signal to accommodate said movement of said bar in
19 response to a second and different state of said control signal.

1 47. (previously presented) The lock of claim 46, further comprised of said
2 operator directly obstructing movement of said bar between said first position and said
3 second position absent said control signal.

1 48. (previously presented) The lock of claim 46, further comprised of:

2 a logic circuit borne by said cylinder plug generating said control signal in
3 response to a comparison between a code set within said logic circuit and a data signal

4 applied to said logic circuit; and
5 said electrical operator moving to accommodate said movement by said
6 bar in response to said control signal.

1 49. (previously presented) The lock of claim 46, further comprised of a locking
2 mechanism borne by said cylinder plug, said cylinder plug being perforated by an
3 aperture admitting reciprocal travel of a key relative to said locking mechanism, and
4 said locking mechanism obstructing movement of said cylinder plug relative to said
5 shell absent the key exhibiting a selected relation with said locking mechanism.

1 50. (previously presented) The lock of claim 46, further comprised of a plurality
2 of electrical conductors borne by said lock to engage a circuit in a key inserted into said
3 cylinder plug.

1 51. (previously presented) The lock of claim 46, further comprised of a power
2 source energizing said electric operator to move during said second and different state
3 of said control signal, positioned to rotate with said cylinder plug relative to said shell.

1 52. (previously presented) The lock of claim 51, further comprised of said plug
2 containing a keyway, and said power source being mounted on a key insertable into said
3 keyway.

1 53. (previously presented) The lock of claim 46, further comprised of a network
2 of plugs including said cylinder plug, and a switching device controlling operation of
3 said network and said state of said control signal.

1 54. (previously presented) The lock of claim 46, further comprised of:
2 said cylinder plug containing a keyway;
3 a memory borne by said cylinder plug and storing a code; and
4 a logic circuit comprising a memory storing a code, said circuit being
5 borne by said cylinder plug and generating said control signal in dependence upon

6 correspondence between said code and data borne by a key insertable within said
7 keyway.

1 55. (previously presented) The lock of claim 25, further comprised of:
2 said cylinder plug containing a keyway;
3 a memory borne by said cylinder plug and storing a code; and
4 a logic circuit comprising a memory storing a code, said circuit being
5 borne by said cylinder plug and generating said control signal in dependence upon
6 correspondence between said code and data borne by a key insertable within said
7 keyway.

1 56. (previously presented) A lock, comprising:
2 a shell containing a hollow recess defining a longitudinal axis and an
3 interior cylindrical surface;
4 a plug rotatable around said longitudinal axis while resident within said
5 hollow recess;
6 an elongate member interposed between said shell and said plug to travel
7 between a first position where said elongate member obstructs rotation between said
8 shell and said plug by making simultaneous engagement of both said shell and said
9 plug, and in response to a torque that is externally applied to said plug and causes
10 rotation of said plug within said shell, exiting said recess and traveling to a second
11 position while maintaining a second simultaneous engagement of said shell and said
12 plug that accommodates said rotation;
13 said plug comprising:
14 a first base perforated by an aperture, and a second base separated
15 by an axial length of said plug from said first base;
16 a logic circuit borne by said plug and rotatable with said plug,
17 conveying said data signal between said aperture to said logic circuit; and
18 an electrical operator responding to said control signals by moving
19 independently of said travel by said elongate member in a second direction
20 within a plane that maintains said simultaneous engagement between one of a

21 first orientation obstructing said travel and relative operable movement between
22 said shell and said plug while said electrical operator is contained wholly within
23 said plug, and a second and different orientation accommodating said travel and
24 said relative operable movement between said shell and said plug.

Claims 57-63. (Canceled)

1 64. (previously presented) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident
5 within said hollow recess, said cylinder plug comprising a first base and a second base
6 separated by an axial length of said cylinder plug from said first base, said second base
7 bearing means for supporting a cam;

8 a sidebar interposed between said shell and said cylinder plug to travel
9 generally along a radial plane between a first position engaging both said shell and said
10 plug while obstructing rotation of said cylinder plug within said recess, and a second
11 position accommodating said rotation;

12 a logic circuit generating an electrical control signal in response to a
13 comparison between a code set within said logic circuit and a data signal applied to said
14 logic circuit;

15 an electrical conductor provided by said plug, conveying said data signal
16 to said logic circuit; and

17 an electrical operator borne by said cylinder plug and rotatable with said
18 plug, said electrical operator being electrically operable to respond to said control
19 signal by moving in a different plane independently of said travel by said sidebar,
20 between one of a first orientation providing obstruction of said travel and a second and
21 different orientation accommodating said travel;

22 said sidebar having a first portion that is positioned to be optionally

23 blocked by another component of said lock functioning independently of said electrical
24 operator to prevent said travel of said sidebar, and a second portion that is positioned to
25 be blocked from said travel by said sidebar to said second position whenever said
26 electrical operator is within said first orientation, and a second portion that is
27 positioned to be optionally blocked by another component of said lock.

1 65. (previously presented) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident
5 within said hollow recess, said cylinder plug comprising a first base and a second base
6 separated by an axial length of said cylinder plug from said first base;

7 a bar interposed between said shell and said cylinder plug to travel
8 generally along a radial plane between a first position engaging both said shell and said
9 plug while obstructing rotation of said cylinder plug within said recess, and a second
10 position accommodating said rotation;

11 a logic circuit generating a control signal in response to a comparison
12 between a code set within said logic circuit and a data signal applied to said logic
13 circuit;

14 an electrical conductor provided by said plug, conveying said data signal
15 to said logic circuit; and

16 an electrical operator comprising an armature, said armature being borne
17 by said cylinder plug and rotating around said longitudinal axis with said plug, said
18 electrical operator being electrically operable to respond to said control signal by
19 moving independently of said travel, between one of a first orientation providing
20 obstruction of said travel and a second and different orientation accommodating said
21 travel.

1 66. (previously presented) The lock of claim 65, with said electrical operator
2 further comprising a coil of an electrically conducting material that is borne by said
3 cylinder plug and wound to drive said armature to move from one of said first and

4 second orientations to the other of said first and second orientations in response to said
5 control signal.

1 67. (previously presented) The lock of claim 65, with said electrical operator
2 further comprising a coil of an electrically conducting material that is borne by said
3 cylinder plug and wound to drive said armature to move from said first orientation to
4 said second orientation in response to said control signal.

1 68. (previously presented) The lock of claim 65, with electrical operator further
2 comprising a coil of an electrically conducting material that is borne by said cylinder
3 plug and wound to drive said armature to rotate around an arc in response to said
4 control signal.

1 69. (previously presented) The lock of claim 65, with said electrical operator
2 further comprising a coil of an electrically conducting material that is borne by said
3 cylinder plug and wound to drive said armature to reciprocate along a radial axis that is
4 transverse to said radial plane in response to said control signal.

1 70. (previously presented) A lock, comprising:
2 a shell containing a hollow recess defining a longitudinal axis and an
3 interior cylindrical surface;
4 a cylinder plug rotatable around said longitudinal axis while resident
5 within said hollow recess, said cylinder plug comprising a first base and a second base
6 separated by an axial length of said cylinder plug from said first base;
7 a bar interposed between said shell and said cylinder plug to travel
8 generally along a radial plane between a first position engaging both said shell and said
9 plug while obstructing rotation of said cylinder plug within said recess, and a second
10 position accommodating said rotation;
11 a logic circuit generating said control signal in response to a comparison
12 between a code set within said logical circuit and a data signal applied to said logical
13 circuit;

14 an electrical conductor provided by said plug, conveying said data signal
15 to said logic circuit; and

16 an electrical operator borne by said cylinder plug and rotatable with said
17 plug, said electrical operator being electrically operable to respond to an electrical
18 control signal applied to said electrical operator by moving along a geometrical
19 construct other than to said radial plane between one of a first orientation providing
20 obstruction of said travel and a second and different orientation accommodating said
21 travel.

1 71. (previously presented) The lock of claim 70, with said electrical operator
2 further comprising an armature and a coil of an electrically conducting material that is
3 borne by said cylinder plug and wound to drive said armature to move along said
4 geometric construct in response to said control signal.

1 72. (previously presented) The lock of claim 70, with said electrical operator
2 further comprising an armature and a coil of an electrically conducting material that is
3 borne by said cylinder plug and wound to drive said armature to move along said
4 geometric construct in response to said control signal from said second orientation to
5 said first orientation.

1 73. (withdrawn) The lock of claim 70, with said geometric construct comprising
2 an arc and said electrical operator further comprising an armature and a coil of an
3 electrically conducting material that is borne by said cylinder plug and wound to drive
4 said armature to rotate around said arc in response to said control signal.

1 74. (previously presented) The lock of claim 70, with said geometric construct
2 comprising a radial axis that is transverse to said radial plane, and said electrical
3 operator further comprising an armature and a coil of an electrically conducting
4 material that is borne by said cylinder plug and wound to drive said armature to
5 reciprocate along said radial axis in response to said control signal.

1 75. (previously presented) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident
5 within said hollow recess, said cylinder plug comprising a first base and a second base
6 separated by an axial length of said cylinder plug from said first base;

7 a bar interposed between said shell and said cylinder plug to travel
8 generally along a radial plane between a first position engaging both said shell and said
9 plug while obstructing rotation of said cylinder plug within said recess, and a second
10 position accommodating said rotation;

11 a logic circuit generating a control signal in response to a comparison
12 between a code set within said logic circuit and a data signal applied to said logic
13 circuit;

14 an electrical conductor provided by said plug, conveying said data signal
15 to said logic circuit; and

16 an electrical operator borne by said cylinder plug and rotatable with said
17 plug, said electrical operator being electrically operable to respond to said control
18 signal by moving along a radial axis that is transverse to said radial plane, between a
19 first orientation providing obstruction of said travel and a second and different
20 orientation accommodating said travel.

1 76. (previously presented) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident
5 within said hollow recess, said cylinder plug comprising a first base and a second base
6 separated by an axial length of said cylinder plug from said first base;

7 a logic circuit generating said control signal in response to a comparison
8 between a code set within said logic circuit and a data signal applied to said logic
9 circuit;

10 an electrical conductor provided by said plug, conveying said data signal

11 to said logic circuit;

12 an elongate bar exhibiting a greatest longitudinal dimension along a
13 second axis that extends transversely to said first base and to said second base, said bar
14 being interposed between said shell and said cylinder plug to travel generally along a
15 radial axis that is transverse to said second axis, between a first position engaging both
16 said shell and said plug while obstructing rotation of said cylinder plug within said
17 recess, and a second position accommodating said rotation; and

18 an electrical operator borne by said cylinder plug and rotatable with said
19 plug, said electrical operator being electrically operable to respond to said control
20 signal by moving along said radial axis between one of a first orientation providing
21 obstruction of said travel and a second and different orientation accommodating said
22 travel.

1 77. (previously presented) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident
5 within said hollow recess, said cylinder plug comprising a first base and a second base
6 separated by an axial length of said cylinder plug from said first base;

7 a logic circuit generating said control signal in response to a comparison
8 between a code set within said logic circuit and a data signal applied to said logic
9 circuit;

10 an electrical conductor provided by said plug, conveying said data signal
11 to said logic circuit;

12 an elongate bar exhibiting a greatest longitudinal dimension along a
13 second axis that extends transversely to said first base and to said second base, said bar
14 being interposed between said shell and said cylinder plug to travel generally along a
15 radial axis that is radial to said cylinder plug and transverse to said second axis,
16 between a first position engaging both said shell and said plug while obstructing
17 rotation of said cylinder plug within said recess, and a second position accommodating
18 said rotation; and

19 an electrical operator borne by said cylinder plug and rotatable with said
20 plug, said electrical operator being electrically operable to respond to a control signal
21 by moving between one of a first orientation providing obstruction of said travel and a
22 second and different orientation accommodating said travel.

1 78. (previously presented) The lock of claim 25, with said electrical operator
2 further comprising an armature and a coil of an electrically conducting material that is
3 borne by said cylinder plug and wound to drive said armature to move from one of said
4 first and second orientations to the other of said first and second orientations in
5 response to said control signal.

1 79. (previously presented) The lock of claim 25, with said electrical operator
2 further comprising an armature and a coil of an electrically conducting material that is
3 borne by said cylinder plug and wound to drive said armature to move from said first
4 orientation to said second orientation in response to said control signal.

1 80. (previously presented) The lock of claim 25, with electrical operator further
2 comprising an armature and a coil of an electrically conducting material that is borne by
3 said cylinder plug and wound to drive said armature to rotate around an arc in response
4 to said control signal.

1 81. (previously presented) The lock of claim 25, with said electrical operator
2 further comprising an armature and a coil of an electrically conducting material that is
3 borne by said cylinder plug and wound to drive said armature to reciprocate along a
4 radial axis that is transverse to said radial plane in response to said control signal.

1 82. (previously presented) The lock of claim 25, further comprised of a
2 component biasing said bar to maintain said first position engaging both said shell and
3 said plug.

1 83. (previously presented) The lock of claim 25, further comprised of a
2 component biasing said electrical operator to maintain said second orientation providing
3 obstruction of said bar.

1 84. (previously presented) The lock of claim 25, further comprised of:
2 a first component biasing said bar to maintain said first position engaging both
3 said shell and said plug; and
4 a second component biasing said electrical operator to maintain said second
5 orientation providing obstruction of said bar.

Claims 85-89. (Canceled)

1 90. (previously presented) A process of retrofitting a mechanical cylinder lock
2 to form an electromechanical cylinder lock, the process comprising steps of:
3 providing a mechanical cylinder lock including an outer shell with a bore, a first
4 rotatable barrel located in the bore, and a side bar for preventing and permitting rotation
5 of the barrel within the bore in the shell;
6 removing the first barrel from the shell;
7 providing an electronically powered rotatable barrel having an exterior adapted
8 to substantially correspond to the bore in the shell, and including:
9 at least one electromechanical locking member disposed in the barrel, the
10 electromechanical locking member being positionable to permit the side bar to engage
11 the locking member in a non-barrel blocking position which permits the barrel to rotate
12 with respect to the shell, and the electromechanical locking member also being
13 positionable in a barrel blocking position which blocks rotation of the barrel with
14 respect to the shell; and
15 an electronically powered drive mechanism cooperating with the
16 electromechanical locking member to selectively move the locking member from the
17 barrel blocking position to the non-barrel blocking position in which the side bar
18 engages the locking member to rotate the barrel and operate the lock; and

19 securing the electronically powered rotatable barrel in the bore in the shell to
20 form an electromechanical cylinder lock, the lock including control means carried by at
21 least one of the barrel and bore for energizing the electronically powered drive
22 mechanism in response to an authorized attempt to open the lock.

1 91. (previously presented) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident
5 within said hollow recess, said cylinder plug comprising a first base perforated by a
6 keyway and a second base separated by an axial length of said cylinder plug from said
7 first base, said second base disposed to support a cam;

8 a bar interposed between said shell and said cylinder plug to reciprocate
9 generally along a radial plane between a first position engaging both said shell and said
10 plug while obstructing rotation of said cylinder plug within said recess, and a second
11 position accommodating said rotation when a torque is externally applied to said
12 keyway to rotate said cylinder plug within said shell;

13 a locking mechanism borne by and rotating with said cylinder plug, said
14 locking mechanism being interposed between said cylinder plug and said bar, and
15 exhibiting a first disposition hindering said reciprocation and, in response to insertion
16 of a key in physical conformance to said locking mechanism, exhibiting a second and
17 different disposition accommodating said reciprocation; and

18 an electrical operator borne by said cylinder plug and rotatable with said
19 cylinder plug, said electrical operator being electrically operable to respond to a control
20 signal by moving independently of said bar between a first orientation providing
21 obstruction of said reciprocation by said bar and a second and different orientation
22 removing said obstruction.

1 92. (previously presented) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident
5 within said hollow recess;

6 a bar interposed between said shell and said cylinder plug to extend
7 generally along a radial plane between a first state engaging both said shell and said
8 plug while obstructing rotation of said cylinder plug within said recess, and a second
9 state accommodating said rotation;

10 said cylinder plug comprising:

11 a first base and a second base separated by an axial length of said cylinder
12 plug from said first base, said second base configured to support a cam; and

13 an electrical operator comprising an armature borne by said cylinder plug
14 and rotatable with said cylinder plug, said electrical operator being electrically
15 operable to respond to a control signal by moving said armature independently of
16 said bar, between one of a first orientation providing obstruction of said rotation
17 during said first state and a second orientation accommodating independent
18 relative movement between said bar and said cylinder plug.

1 93. (previously presented) The lock of claim 92, further comprised of:

2 a coil wound to provide conduction of an electrical current in response to
3 said control signal; and

4 said armature comprising an exterior surface exhibiting a rest position
5 between said shell and said cylinder plug, said armature obstructing said rotation absent
6 said conduction, accommodating said rotation during said conduction, and
7 accommodating said rotation until said rotation returns said armature to said rest
8 position after termination of said conduction.

1 94. (withdrawn) The lock of claim 92, further comprised of:

2 a coil wound to provide conduction of an electrical current in response to
3 said control signal; and

4 said armature comprising an exterior surface exhibiting a rest position
5 with said exterior surface extending between said shell and said cylinder plug while
6 said cylinder plug is in alignment with said shell in a locked condition, said armature

7 obstructing said rotation absent said conduction, accommodating said rotation during
8 said conduction by withdrawing from said shell and wholly into said cylinder plug,
9 accommodating said rotation until said rotation returns said armature to said rest
10 position after termination of said conduction, and resuming said rest position when said
11 rotation restores said alignment.

1 95. (previously presented) The lock of claim 92, further comprised of:

2 a coil wound to provide conduction of an electrical current in response to
3 said control signal; and

4 said armature comprising an exterior surface exhibiting a rest position
5 between said bar and said cylinder plug, said armature obstructing said rotation absent
6 said conduction, said armature accommodating said rotation during said conduction,
7 and said armature accommodating said rotation until said rotation returns said armature
8 to said rest position after termination of said conduction.

1 96. (previously presented) The lock of claim 92, further comprised of:

2 a coil wound to provide conduction of an electrical current in response to
3 said control signal; and

4 said armature comprising an exterior surface exhibiting a rest position
5 with said first orientation while said exterior surface is interposed between said bar and
6 said cylinder plug and obstructs said rotation absent said conduction, said armature
7 assuming said second orientation, withdrawing from said interposition and
8 accommodating said rotation during said conduction, and said armature accommodating
9 said rotation until said rotation returns said armature to said rest position with said first
10 orientation after termination of said conduction.

1 97. (previously presented) The lock of claim 92, further comprised of:

2 a coil wound to provide conduction of an electrical current in response to
3 said control signal; and

4 said armature comprising an exterior surface exhibiting a rest position
5 with said first orientation while said exterior surface is interposed between said bar and

6 said cylinder plug and obstructs said rotation absent said conduction, said armature
7 assuming said second orientation, withdrawing from said interposition and
8 accommodating said rotation during said conduction, and said armature maintaining
9 said second orientation and accommodating said rotation after said rotation returns said
10 armature to said rest position after termination of said conduction.

1 98. (previously presented) The lock of claim 92, further comprised of:

2 a coil wound to provide conduction of an electrical current in response to
3 said control signal; and

4 said armature comprising an exterior surface exhibiting a rest position
5 with said first orientation while said exterior surface is interposed between said bar and
6 said cylinder plug and obstructs said rotation absent said conduction, said armature
7 assuming said second orientation, withdrawing from said interposition and
8 accommodating said rotation during said conduction, said armature maintaining said
9 second orientation and accommodating said rotation after said rotation returns said
10 armature to said rest position after termination of said conduction, and said armature
11 resuming said first orientation during renewal of said conduction subsequent to said
12 termination.

1 99. (previously presented) The lock of claim 92, further comprised of:

2 a coil wound to provide conduction of an electrical current in response to
3 said control signal; and

4 said armature comprising an exterior surface exhibiting a rest position
5 while in said first orientation absent said conduction with a first thickness of said
6 exterior surface interposed between said bar and said cylinder plug and with said
7 cylinder plug in alignment with said shell in a locked position, said armature exhibiting
8 said second orientation and accommodating said rotation during said conduction with a
9 second and lesser thickness of said exterior surface permitting movement of said bar
10 relative to said cylinder plug, and said armature accommodating said rotation until said
11 rotation allows said bar to reverse said relative movement and said armature to return to
12 said rest position after termination of said conduction.

- 1 100. (previously presented) The lock of claim 92, further comprised of:
2 a logic circuit borne by said cylinder plug, generating said control signal
3 in response to a comparison between a code set within said logic circuit and a data
4 signal applied to said logic circuit; and
5 said electrical operator moving between said second orientation and said
6 first orientation in response to said control signal.

Claims 101-104. (Canceled)

- 1 105. (previously presented) The process of claim 90, further comprising:
2 orienting said side bar to travel along a plane that extends approximately
3 radially relative to said electronically powered rotatable barrel when engaging said
4 locking member; and
5 positioning said locking member to move on an axis that is approximately
6 perpendicular to said plane when said locking member is selectively moved from said
7 barrel blocking position to said non-barrel blocking position.
- 1 106. (previously presented) The lock of claim 14, further comprising said bar
2 engaging both said shell and said plug during said movement between said plug and
3 said cylinder.
- 1 107. (previously presented) The lock of claim 25, further comprising said bar
2 engaging both said shell and said cylinder plug during said rotation.
- 1 108. (previously presented) The lock of claim 46, further comprising said bar
2 engaging both said shell and said cylinder plug during said rotation.
- 1 109. (previously presented) The lock of claim 64, further comprising said

2 sidebar engaging both said shell and said cylinder plug during said rotation.

1 110. (previously presented) The lock of claim 65, further comprising said bar
2 engaging both said shell and said cylinder plug during said rotation.

1 111. (previously presented) The lock of claim 70, further comprising said bar
2 engaging both said shell and said cylinder plug during said rotation.

1 112. (previously presented) The lock of claim 75, further comprising said bar
2 engaging both said shell and said cylinder plug during said rotation.

1 113. (previously presented) The lock of claim 76, further comprising said bar
2 engaging both said shell and said cylinder plug during said rotation.

1 114. (previously presented) The lock of claim 77, further comprising said bar
2 engaging both said shell and said cylinder plug during said rotation.

1 115. (previously presented) An electromechanical lock cylinder, comprising:
2 an outer shell having a bore formed therein and a cavity extending from
3 the bore into the shell;

4 a barrel disposed within the bore in the shell and being rotatable relative
5 to the shell;

6 a side bar cooperating between the shell and the barrel for selectively
7 permitting and blocking rotation of the barrel with respect to the shell, the side bar
8 having a first portion engaging the barrel and a second portion removably received in
9 the cavity in the shell, the side bar being movable relative to the barrel;

10 at least one electromechanical locking member disposed within the barrel
11 and positionable in a barrel blocking position blocking rotation of the barrel with
12 respect to the shell, and also positionable in a non-barrel blocking position permitting
13 the side bar to be moved relative to the cavity in the shell to rotate the barrel with

14 respect to the shell; and

15 said side bar engaging both said shell and said barrel during said rotation;

16 an electronically powered drive mechanism located within the barrel and
17 cooperating with the electromechanical locking member to selectively move the locking
18 member from the barrel blocking position to the non-barrel blocking position in which
19 the side bar moves out of the cavity and engages the locking member; and

20 a controller activating the electronically powered drive mechanism in
21 response to an authorized attempt to operate the lock cylinder.

1 116. (previously presented) The lock of claim 91, further comprising said bar
2 engaging both said shell and said cylinder plug during said rotation.

Claims 117-118. (Canceled)

1 119. (previously presented) An electromechanical lock cylinder, comprising:

2 an outer shell having a bore formed therein and a cavity extending from
3 the bore into the shell;

4 a barrel disposed within the bore in the shell and being rotatable relative
5 to the shell;

6 a side bar cooperating between the shell and the barrel for selectively
7 permitting and blocking rotation of the barrel with respect to the shell, the side bar
8 having a first portion engaging the barrel and a second portion removably received in
9 the cavity in the shell, the side bar being movable relative to the barrel;

10 at least one electromechanical locking member disposed within the barrel
11 and positionable in a barrel blocking position to block rotation of the barrel with
12 respect to the shell, and also is positionable in a non-barrel blocking position to permit
13 the side bar to be moved relative to the cavity in the shell; and

14 said side bar moveable out of the cavity and engage the locking member,
15 said side bar disposed to rotate with the barrel;

16 an electronically powered drive mechanism located within the barrel and
17 cooperating with the electromechanical locking member to selectively move the locking
18 member from the barrel blocking position to the non-barrel blocking position in which
19 the side bar moves out of the cavity and engages the locking member; and

20 a controller activating the electronically powered drive mechanism in
21 response to an authorized attempt to operate the lock cylinder.

1 120. (previously presented) A rotatable lock barrel for insertion into a lock
2 cylinder having a bore formed therein, the barrel comprising:

3 an elongated, generally cylindrically shaped barrel member having an
4 exterior configured for receipt in a bore of a lock cylinder and an interior containing a
5 plurality of electromechanical locking members, the barrel member having a recess
6 formed therein;

7 the locking members disposed in the recess of the barrel member and
8 substantially entirely contained within the barrel member, each of the locking members
9 including a groove and the locking members being movable to a position in which the
10 grooves of the locking members are aligned;

11 the recess in said barrel member being configured to receive at least a
12 portion of a movable side bar of a lock cylinder to permit the side bar to move into and
13 out of engagement with the grooves of the locking members for selectively permitting
14 and blocking rotation of the barrel member with respect to a lock cylinder when
15 positioned therein; and

16 an electronically powered drive mechanism located within the barrel
17 member for moving the electromechanical locking members to a position in which the
18 grooves of the locking members are aligned.

1 121. (previously presented) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an
3 interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident
5 within said hollow recess;

6 a bar interposed between said shell and a cylinder plug detent extending
7 radially from a second recess within said shell into a passage within said cylinder plug
8 to create an obstruction to rotation of said cylinder plug within said hollow recess;

9 said cylinder plug comprising:

10 a first base and a second base separated by an axial length of said cylinder
11 plug from said first base, said second base configured to support a cam; and

12 an electrical operator borne by said cylinder plug and rotatable with said
13 cylinder plug, said electrical operator being electrically operable to respond to a
14 control signal by moving independently of said detent between one of a first
15 orientation accommodating relative movement between said detent and said
16 cylinder plug and a second and different orientation maintaining obstruction of
17 said relative movement by engaging said detent.

1 122. (Previously presented) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an
3 interior surface;

4 a plug moveable relative to said longitudinal axis while resident within
5 said recess, said plug comprising a first base presenting a key engaging feature and a
6 second base separated by an axial length of said cylinder plug from said first base;

7 a detent interposed between said shell and said plug;

8 a logic circuit generating a control signal in response to a comparison
9 between a code set within said logic circuit and a data signal applied to said logic
10 circuit; and

11 an electro-mechanical operator comprising an electrically responsive
12 member and an armature, said electro-mechanical operator, said electrically responsive
13 member, said armature and said logic circuit being borne by said cylinder plug and
14 moving relative to said longitudinal axis with said plug, said electro-mechanical
15 operator responding to said control signal by moving said armature independently of
16 said travel, between a first orientation cooperating with said detent to obstruct said
17 movement and a second and different orientation accommodating said movement.

- 1 123. (Previously presented) A lock, comprising:
2 a cylinder containing a hollow recess defining a longitudinal axis;
3 a plug moveable relative to said longitudinal axis while resident within
4 said hollow recess, said plug comprising:
5 a terminal portion providing a key engaging feature;
6 an exterior surface extending from said terminal portion;
7 a detent extending between said cylinder and said plug;
8 an electronic logic circuit borne by said plug, coupled to receive data
9 signals via said key engaging feature, and generating control signals in dependence
10 upon said data signals; and
11 an electro-mechanical operator borne by said plug, said operator having a
12 distal member traveling relative to said plug in dependence upon said control signals
13 between a first position cooperating with said detent and thereby obstructing movement
14 of the plug relative to said cylinder and a second and different position accommodating
15 said movement.
- 1 124. (Previously presented) The lock of claim 123, further comprising said logic
2 circuit and electro-mechanical operator simultaneously experiencing said movement of
3 the plug relative to said cylinder whenever said plug moves relative to said cylinder.
- 1 125. (Previously presented) The lock of claim 123, further comprised of said
2 detent comprising a movable sidebar borne by said plug to create an obstruction to said
3 movement of the plug relative to said cylinder and said plug.
- 1 126. (Previously presented) The lock of claim 123, further comprised of said
2 detent comprising a movable sidebar borne by said plug to create an obstruction to said
3 movement of the plug relative to said cylinder and said plug; and
4 a locking device disposed within said plug to release obstruction of said
5 movement of the plug relative to said cylinder when a key engages in a selected relation
6 with said locking device, and to maintain said obstruction absent said selected relation.

1 127. (Previously presented) The lock of claim 126, further comprising said logic
2 circuit, said electro-mechanical operator, said sidebar and said locking device
3 simultaneously experiencing said movement of the plug relative to said cylinder
4 whenever said plug moves relative to said cylinder.